Charles A Brearley

List of Publications by Year
in descending order

72 papers	4,573 citations	101543 36 h-index	102487 66 g-index
73 all docs	73 docs citations	73 times ranked	5200 citing authors

#	Article	IF	Citations
1	Evidence for a SAL1-PAP Chloroplast Retrograde Pathway That Functions in Drought and High Light Signaling in <i>Arabidopsis</i> Â Â Â. Plant Cell, 2011, 23, 3992-4012.	6.6	473
2	Inositol hexakisphosphate mobilizes an endomembrane store of calcium in guard cells. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 10091-10095.	7.1	249
3	Enhanced Transcription of the Arabidopsis Disease Resistance Genes RPW8.1 and RPW8.2 via a Salicylic Acidâ€“Dependent Amplification Circuit Is Required for Hypersensitive Cell Death. Plant Cell, 2003, 15, 33-45.	6.6	222
4	Jasmonate and Phytochrome A Signaling in<i>Arabidopsis</i>Wound and Shade Responses Are Integrated through JAZ1 Stability Â. Plant Cell, 2010, 22, 1143-1160.	6.6	211
5	Inositol hexakisphosphate is a physiological signal regulating the K+-inward rectifying conductance in guard cells. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 8687-8692.	7.1	187
6	The Arabidopsis ATP-binding Cassette Protein AtMRP5/AtABCC5 Is a High Affinity Inositol Hexakisphosphate Transporter Involved in Guard Cell Signaling and Phytate Storage. Journal of Biological Chemistry, 2009, 284, 33614-33622.	3.4	177
7	A Single Streptomyces Symbiont Makes Multiple Antifungals to Support the Fungus Farming Ant Acromyrmex octospinosus. PLoS ONE, 2011, 6, e22028.	2.5	164
8	Molecular genetic analysis of a dimethylsulfoniopropionate lyase that liberates the climateâ€changing gas dimethylsulfide in several marine Î±â€proteobacteria and <i>Rhodobacter sphaeroides</i>. Environmental Microbiology, 2008, 10, 757-767.	3.8	156
9	Organic phosphorus in the terrestrial environment: a perspective on the state of the art and future priorities. Plant and Soil, 2018, 427, 191-208.	3.7	145
10	A role for inositol hexakisphosphate in the maintenance of basal resistance to plant pathogens. Plant Journal, 2008, 56, 638-652.	5.7	140
11	Phosphatidylinositol 3,5-bisphosphate defines a novel PI 3-kinase pathway in resting mouse fibroblasts. Biochemical Journal, 1997, 323, 597-601.	3.7	134
12	Molecular dissection of bacterial acrylate catabolism â€“ unexpected links with dimethylsulfoniopropionate catabolism and dimethyl sulfide production. Environmental Microbiology, 2010, 12, 327-343.	3.8	116
13	Landâ€use influences phosphatase gene microdiversity in soils. Environmental Microbiology, 2017, 19, 2740-2753.	3.8	115
14	A defective ABC transporter of the MRP family, responsible for the bean <i>lpa1</i> mutation, affects the regulation of the phytic acid pathway, reduces seed <i>myo</i>â€inositol and alters ABA sensitivity. New Phytologist, 2011, 191, 70-83.	7.3	100
15	Metabolic evidence for the order of addition of individual phosphate esters in the <i>myo</i>-inositol moiety of inositol hexakisphosphate in the duckweed <i>Spirodela polyrhiza</i> L. Biochemical Journal, 1996, 314, 227-233.	3.7	97
16	Cephalosporinases associated with outer membrane vesicles released by Bacteroides spp. protect gut pathogens and commensals against Î²-lactam antibiotics. Journal of Antimicrobial Chemotherapy, 2015, 70, 701-709.	3.0	93
17	A Bacterial Homolog of a Eukaryotic Inositol Phosphate Signaling Enzyme Mediates Cross-kingdom Dialog in the Mammalian Gut. Cell Reports, 2014, 6, 646-656.	6.4	88
18	Recurrent-Neural-Network-Based Adaptive-Backstepping Control for Induction Servomotors. IEEE Transactions on Industrial Electronics, 2005, 52, 1677-1684.	7.9	85

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19	PiUS (Pi uptake stimulator) is an inositol hexakisphosphate kinase. FEBS Letters, 1999, 461, 169-172.	2.8	83
20	Arabidopsis Inositol Polyphosphate 6-/3-Kinase Is a Nuclear Protein That Complements a Yeast Mutant Lacking a Functional ArgR-Mcm1 Transcription Complex. Plant Cell, 2003, 15, 449-463.	6.6	80
21	Arabidopsis inositol phosphate kinases <scp>IPK</scp>1 and <scp>ITPK</scp>1 constitute a metabolic pathway in maintaining phosphate homeostasis. Plant Journal, 2018, 95, 613-630.	5.7	79
22	AtDGK2, a Novel Diacylglycerol Kinase from Arabidopsis thaliana, Phosphorylates 1-Stearoyl-2-arachidonoyl-sn-glycerol and 1,2-Dioleoyl-sn-glycerol and Exhibits Cold-inducible Gene Expression. Journal of Biological Chemistry, 2004, 279, 8230-8241.	3.4	78
23	Reduced inositol content and altered morphology in transgenic potato plants inhibited for 1D-myo-inositol 3-phosphate synthase. Plant Journal, 1998, 16, 403-410.	5.7	76
24	Arabidopsis AtDGK7, the Smallest Member of Plant Diacylglycerol Kinases (DGKs), Displays Unique Biochemical Features and Saturates at Low Substrate Concentration. Journal of Biological Chemistry, 2005, 280, 34888-34899.	3.4	69
25	A Plant 126-kDa Phosphatidylinositol 4-Kinase with a Novel Repeat Structure. Journal of Biological Chemistry, 1999, 274, 5738-5745.	3.4	67
26	Bacteria are important dimethylsulfoniopropionate producers in coastal sediments. Nature Microbiology, 2019, 4, 1815-1825.	13.3	67
27	An Arabidopsis inositol phospholipid kinase strongly expressed in procambial cells: Synthesis of PtdIns(4,5)P2 and PtdIns(3,4,5)P3 in insect cells by 5-phosphorylation of precursors. Plant Journal, 2001, 26, 561-571.	5.7	59
28	Characterization of an Arabidopsis inositol 1,3,4,5,6-pentakisphosphate 2-kinase (AtIPK1). Biochemical Journal, 2006, 394, 95-103.	3.7	57
29	Effects of fou8/fry1 Mutation on Sulfur Metabolism: Is Decreased Internal Sulfate the Trigger of Sulfate Starvation Response?. PLoS ONE, 2012, 7, e39425.	2.5	57
30	Inositol phosphates in barley (<i>Hordeum vulgare</i> L.) aleurone tissue are stereochemically similar to the products of breakdown of Ins<i>P</i>6<i>in vitro</i> by wheat-bran phytase. Biochemical Journal, 1996, 318, 279-286.	3.7	53
31	Inositol phosphates in the duckweed <i>Spirodela polyrhiza</i> L. Biochemical Journal, 1996, 314, 215-225.	3.7	51
32	At5PTase13 Modulates Cotyledon Vein Development through Regulating Auxin Homeostasis. Plant Physiology, 2005, 139, 1677-1691.	4.8	50
33	A Role of Arabidopsis Inositol Polyphosphate Kinase, AtIPK2Î±, in Pollen Germination and Root Growth. Plant Physiology, 2005, 137, 94-103.	4.8	49
34	<i>Arabidopsis thaliana</i> inositol 1,3,4â€trisphosphate 5/6â€kinase 4 (AtITPK4) is an outlier to a family of ATPâ€grasp fold proteins from Arabidopsis. FEBS Letters, 2007, 581, 4165-4171.	2.8	49
35	Inositol 1,3,4,5,6-pentakisphosphate 2-kinase is a distant IPK member with a singular inositide binding site for axial 2-OH recognition. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 9608-9613.	7.1	46
36	Characterization of Arabidopsis <i>mur3</i> mutations that result in constitutive activation of defence in petioles, but not leaves. Plant Journal, 2008, 56, 691-703.	5.7	40

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37	An ATP-responsive metabolic cassette comprised of inositol tris/tetrakisphosphate kinase 1 (ITPK1) and inositol pentakisphosphate 2-kinase (IPK1) buffers diphosphoinositol phosphate levels. Biochemical Journal, 2020, 477, 2621-2638.	3.7	40
38	Assessment of iron bioavailability from different bread making processes using an in vitro intestinal cell model. Food Chemistry, 2017, 228, 91-98.	8.2	35
39	Metabolism of 3- and 4-phosphorylated phosphatidylinositols in stomatal guard cells of Commelina communis L.. Plant Journal, 1995, 8, 425-433.	5.7	34
40	Characterization of myo-inositol hexakisphosphate deposits from larval Echinococcus granulosus. FEBS Journal, 2006, 273, 3192-3203.	4.7	34
41	Quantum Blue Reduces the Severity of Woody Breast Myopathy via Modulation of Oxygen Homeostasis-Related Genes in Broiler Chickens. Frontiers in Physiology, 2019, 10, 1251.	2.8	32
42	Metabolic evidence for PtdIns(4,5)<i>P</i>2-directed phospholipase C in permeabilized plant protoplasts. Biochemical Journal, 1997, 324, 123-131.	3.7	29
43	A major role for P2X1 receptors in the early collagen-evoked intracellular Ca2+ responses of human platelets. Thrombosis and Haemostasis, 2005, 94, 37-40.	3.4	29
44	Metabolic Relations of Inositol 3,4,5,6-Tetrakisphosphate Revealed by Cell Permeabilization. Identification of Inositol 3,4,5,6-Tetrakisphosphate 1-Kinase and Inositol 3,4,5,6-Tetrakisphosphate Phosphatase Activities in Mesophyll Cells. Plant Physiology, 2000, 122, 1209-1216.	4.8	28
45	Exogenous phytase and xylanase exhibit opposing effects on real-time gizzard pH in broiler chickens. British Poultry Science, 2018, 59, 568-578.	1.7	21
46	Effect of phytase on intestinal phytate breakdown, plasma inositol concentrations, and glucose transporter type 4 abundance in muscle membranes of weanling pigs1. Journal of Animal Science, 2019, 97, 3907-3919.	0.5	21
47	A <i>Solanum tuberosum</i> inositol phosphate kinase (StITPK1) displaying inositol phosphateâ€"inositol phosphate and inositol phosphateâ€"ADP phosphotransferase activities. FEBS Letters, 2008, 582, 1731-1737.	2.8	19
48	Intrinsic GTPase activity of a bacterial twinâ€arginine translocation proofreading chaperone induced by domain swapping. FEBS Journal, 2010, 277, 511-525.	4.7	19
49	Gibberellin modulation of phosphatidyl-choline turnover in wheat aleurone tissue. Planta, 1987, 172, 502-507.	3.2	14
50	Manipulation of plasma myo-inositol in broiler chickens: effect on growth performance, dietary energy, nutrient availability, and hepatic function. Poultry Science, 2019, 98, 260-268.	3.4	14
51	Conformational Changes in Inositol 1,3,4,5,6-Pentakisphosphate 2-Kinase upon Substrate Binding. Journal of Biological Chemistry, 2012, 287, 29237-29249.	3.4	13
52	Synthesis of inositol phosphate ligands of plant hormoneâ€"receptor complexes: pathways of inositol hexakisphosphate turnover. Biochemical Journal, 2012, 444, 601-609.	3.7	12
53	Lab-scale preparation and QC of phytase assay substrate from rice bran. Analytical Biochemistry, 2019, 578, 7-12.	2.4	12
54	Phosphoinositides in Barley (Hordeum vulgare L.) Aleurone Tissue. Plant Physiology, 1994, 104, 1381-1384.	4.8	11

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55	A lysine accumulation phenotype of ScIpk2Î” mutant yeast is rescued by Solanum tuberosum inositol phosphate multikinase. Biochemical Journal, 2007, 403, 381-389.	3.7	11
56	Inhibition of membrane damage due to phospholipase activity during fractionation of wheat aleurone tissue. Phytochemistry, 1987, 26, 1903-1908.	2.9	8
57	The crystal structure of mammalian inositol 1,3,4,5,6-pentakisphosphate 2-kinase reveals a new zinc-binding site and key features for protein function. Journal of Biological Chemistry, 2017, 292, 10534-10548.	3.4	8
58	Simple synthesis of 32P-labelled inositol hexakisphosphates for study of phosphate transformations. Plant and Soil, 2018, 427, 149-161.	3.7	8
59	Both <scp>d</scp>- and <scp>l</scp>-Glucose Polyphosphates Mimic <scp>d</scp>-<i>myo</i>-Inositol 1,4,5-Trisphosphate: New Synthetic Agonists and Partial Agonists at the Ins(1,4,5)P₃ Receptor. Journal of Medicinal Chemistry, 2020, 63, 5442-5457.	6.4	8
60	A Fluorescent Probe Identifies Active Site Ligands of Inositol Pentakisphosphate 2-Kinase. Journal of Medicinal Chemistry, 2018, 61, 8838-8846.	6.4	6
61	Snapshots during the catalytic cycle of a histidine acid phytase reveal an induced-fit structural mechanism. Journal of Biological Chemistry, 2020, 295, 17724-17737.	3.4	6
62	Allosteric Site on SHIP2 Identified Through Fluorescent Ligand Screening and Crystallography: A Potential New Target for Intervention. Journal of Medicinal Chemistry, 2021, 64, 3813-3826.	6.4	5
63	Structure of a cereal purple acid phytase provides new insights to phytate degradation in plants. Plant Communications, 2022, 3, 100305.	7.7	5
64	Crystallization and preliminary X-ray diffraction analysis of inositol 1,3,4,5,6-pentakisphosphate kinase fromArabidopsis thaliana. Acta Crystallographica Section F: Structural Biology Communications, 2010, 66, 102-106.	0.7	4
65	Improved sensitivity, accuracy and prediction provided by a highâ€performance liquid chromatography screen for the isolation of phytaseâ€harbouring organisms from environmental samples. Microbial Biotechnology, 2021, 14, 1409-1421.	4.2	4
66	Insights to the Structural Basis for the Stereospecificity of the Escherichia coli Phytase, AppA. International Journal of Molecular Sciences, 2022, 23, 6346.	4.1	4
67	Membrane specificity of non-monotonic trends in cation-mediated injury to rapidly frozen phospholipid vesicles. Chemistry and Physics of Lipids, 1991, 59, 183-187.	3.2	3
68	A comparative study of the cryopreservation of human erythrocytes, ghosts and liposomes. Biochemical Society Transactions, 1988, 16, 354-354.	3.4	2
69	Sorting out PtdIns(4,5)P2 and clathrin-coated vesicles in plants. Biochemical Journal, 2008, 415, e1-e3.	3.7	2
70	Expression, purification, crystallization and preliminary X-ray diffraction analysis of the apo form of InsP52-K fromArabidopsis thaliana. Acta Crystallographica Section F: Structural Biology Communications, 2012, 68, 701-704.	0.7	2
71	Nonmonotonic trends in electrolyte-induced injury to rapidly cooled erythrocytes. Cryobiology, 1992, 29, 175-182.	0.7	1
72	Regioisomeric Family of Novel Fluorescent Substrates for SHIP2. ACS Medicinal Chemistry Letters, 2020, 11, 309-315.	2.8	1